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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,209	01/12/2001	Michael Gough	60333-302802	2681

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TECHNOLOGY & INTELLECTUAL PROPERTY STRATEGIES
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EXAMINER

SORRELL, ERON J

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,209

Applicant(s)

GOUGH, MICHAEL

Examiner

Eron J. Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-12, 14, 15, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 13 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 30 recites the limitation "said network" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim. The claim recites the limitations of a laser network and a non-laser network. It is unclear to the Examiner which network is being referred to as "said network."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1,3,7,12, and 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Philippe et al. (U.S. Patent No. 5,510,923 hereinafter "Philippe") in view of Tawara et al. (U.S. Patent No. 4,926,415 hereinafter "Tawara").

7. Referring to claim 1, Philippe teaches a system for accelerating data transfer between networked stations (see figure 6), comprising:

a plurality of stations (see items S1-S3 of figure 6);
at least one laser unit (see items labeled "optical card" in figure 6) coupled to each station for communicating data between the station via free space by way of a laser beam at a rate faster than that which the network is capable (see lines 8-27 of column 4).

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Philippe fails to teach the stations are databases and fails to teach a data rate monitor operative to enable at least one laser unit when the data rate meets a condition wherein data communication is improved using the at least one laser unit.

Tawara teaches, in an analogous system, a database coupled to first and second networks wherein the second network is a high-speed network for transferring large amounts of data (see lines 1-13 of column 1) and a data rate monitor (see item 4 in figure 4) operative to enable the high speed transmission medium when the data rate meets a condition wherein data communication is improved using the high-speed network transmission medium (see lines 54-67 of column 2, note the "data rate" is being construed as the amount of data per message).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Philippe with the above teachings of Tawara such that it includes the data rate monitor operative to enable at least one laser unit when the data rate meets a condition wherein data communication is improved using the at least one laser unit. One of ordinary skill in the art would have been motivated to make such modification in order to transfer data more efficiently through the system as suggested by Tawara (see lines 11-28 of column 6).

8. Referring to claim 3, Philippe teaches the network is an Ethernet (see lines 8-27 of column 4).

9. Referring to claim 7, Philippe teaches each laser unit includes a transmitter and receiver (see item labeled "optical card" in figure 6, note the bi-directional communication links).

10. Referring to claim 12, Philippe as modified by Tarawa teaches the laser units communicate data between the stations upon a rate of the communication exceeding a predetermined amount (see Tawara, lines 17-24 of column 9).

11. Referring to claim 30, Philippe teaches a multi-mode network (see figure 1) comprising:

a non-laser network (see item labeled R2 in figure 1) having a first maximum transmission rate (see lines 1-19 and 49-54 of column 2);

a laser network (see item labeled R1 in figure 1) having a second maximum transmission rate greater than said first maximum transmission rate (see lines 1-19 and 49-54 of column 2);

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a plurality of computing units (see items S1-SN in figure 1) coupled to both said non-laser network and said laser network (see lines 8-27 of column 4).

Philippe fails to teach a data switch transferring data from said network to at least one laser when a data rate of said network is determined to be better handled by said laser network.

Tawara teaches, in an analogous system, a data switch (see item 4 in figure 4) transferring data from said network to over a faster transmission rate network medium when a data rate of said network is determined to be better handled by faster transmission rate network medium (see lines 54-67 of column 2, note the "data rate" is being construed as the amount of data per message).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Philippe with the above teachings of Tawara such that it includes the data rate monitor to transfer data from to the laser when a data rate of the network is determined to be better handled by the laser network. One of ordinary skill in the art would have been motivated to make such modification in order to transfer data more efficiently through the system as suggested by Tawara (see lines 11-28 of column 6).

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12. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tawara et al. (U.S. Patent No. 4,926,415 hereinafter "Tawara") in view of Philippe et al. (U.S. Patent No. 5,510,923 hereinafter "Philippe").

13. Referring to claim 31, Tawara teaches a method of providing a multi-mode network (see figure 13) comprising:

sensing a data rate between a first node and a second node that are coupled together by both a non-laser transmission and a high speed transmission medium (see lines 17-24 of column 9); and

switching between the non-laser transmission medium and the high-speed transmission medium based upon the data rate (see lines 54-67 of column 2, note the "data rate" is being construed as the amount of data per message).

Tawara fails to teach the high-speed network medium is a laser transmission medium.

Philippe teaches, in an analogous system, a multi-mode network, wherein the high-speed network transmission medium is a laser transmission medium (see lines 1-19 of column 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the

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method of Tawara with the above teachings of Philippe. One of ordinary skill would have been motivated to make such modification in order to greatly increase network capacity by taking advantage of the high transfer rate the laser transmission medium affords for transferring large amounts of data as suggested by Philippe (see lines 16-30 of column 1).

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Philippe in view of Tawara as applied to claim 1 above and further in view of Johnson (U.S. Patent No. 6,681,116).

15. Referring to claim 2, the combination of Philippe and Tawara fails to teach the limitation of the network comprising a router.

Johnson teaches, in an analogous system, a router in a network with databases coupled to a laser network and a non-laser network (see items labeled "router" in figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Philippe and Tawara with the above teachings of Johnson in order to expand the network by allowing more devices to communicate using the router.

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16. Claim 5, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philippe in view of Tawara as applied to claims above and further in view of Knapp (U.S. Patent No. 4,975,926).

17. Referring to claims 5 and 6, the combination of Philippe and Tawara fails to teach the laser units are mounted on each of the databases and move with two degrees of freedom and are moved into alignment prior to communicating.

Knapp teaches a system wherein laser units are mounted on each of the databases (see figures 2 and 4) and provide move with two degrees of freedom (see figure 3, note the transceiver moves up and down, and the angle can be adjusted) and moved into alignment prior to communicating (see lines 6-14 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Philippe and Tawara with the above teachings of Knapp. One of ordinary skill in the art would have been motivated to make such modification in order to prevent normal movements of people and objects from interfering with the line of sight of the laser units as suggested by Knapp (see lines 6-14 of column 4).

18. Referring claim 8, Knapp teaches the databases are located in a single housing (room) (see figure 4 and lines 15-25 of column 4).

19. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Philippe in view of Tawara as applied to claim 1 above, and further in view of Hurst, Jr. et al. (U.S. Patent No. 6,360,035 hereinafter "Hurst").

20. Referring to claim 15, the combination of Philippe and Tawara fails to teach the limitation of the laser unit being positioned based on a look-up table.

Hurst teaches a system, wherein the laser unit is moved into position based on a look-up table to eliminate time consuming calculations (see paragraph bridging columns 19 and 20).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Philippe and Tawara with the above teachings of Hurst. One of ordinary skill in the art would have been motivated to make such modification in order to eliminate time consuming calculations.

21. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philippe in view of Tawara and further in view of Knapp as applied to claims 5, 6, and 8 above, and further in view of Heflinger (U.S. Patent No. 5,726,786).

22. Referring to claims 9-11, the combination of Philippe, Tawara, and Knapp fails to teach the housing has a reflective surface positioned thereon for reflecting the laser beam between laser units, or that the housing has a substantially spherical or hemi-spherical configuration.

Heflinger teaches a system wherein laser units are located within a housing having a reflective surface mounted thereon (see figure 1 and lines 45-67 of column 14) and the housing may have a spherical or hemi-spherical configuration (see figures 2 and 3 and lines 61 of column 16 to line 41 of column 17).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Philippe, Tawara, and Knapp with the above teachings of Heflinger. One of ordinary skill in the art would have been motivated to make such modification in order to simultaneously and uniformly transfer data to other nodes in the network as suggested by Heflinger (see lines 29-31 of column 8).

Allowable Subject Matter

23. Claims 13 and 16-18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

24. Appellant's arguments in section IX-A, see Appeal Brief, filed 11/14/05, with respect to the 112 second paragraph rejection of claim 3 has been fully considered and is persuasive. The 112 second paragraph rejection of 3 has been withdrawn.

25. Appellant's arguments, see Appeal Brief, filed 11/14/05, with respect to the claims 13 and 16-18 have been fully considered and are persuasive. The rejections of 13 and 16-18 has been withdrawn. These claims have been indicated as comprising allowable subject matter.

26. Appellant's arguments filed 11/14/05 (see section IX-F) have been fully considered but they are not persuasive. The appellant argues that the rejections based on Heflinger are in

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error because Heflinger teaches away from point-to-point communication.

27. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., point-to-point communication) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

28. All other arguments are rendered moot in light of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the

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organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS

January 18, 2006

Mano Padmanabhan
1/19/06

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER